

**FINDING OF NO SIGNIFICANT IMPACT
FOR THE CITY OF THOMPSON FALLS, MONTANA
WATER SYSTEM IMPROVEMENTS**

TO: ALL INTERESTED PERSONS

Date:	January 11, 2008
Action:	Funding Drinking Water System Improvements
Location of Project:	City of Thompson Falls, Montana
DEQ Loan:	\$137,250
TSEP Grant:	\$363,000
DNRC Grant:	\$100,000
Local Funds	<u>\$135,000</u>
Total Project Cost:	\$735,250

An environmental assessment (EA) has been prepared by the Montana Department of Environmental Quality (DEQ) for proposed funding for improvements to the City of Thompson Falls water distribution and disinfection system. The proposed improvements include the construction of a disinfection building adjacent to the existing Ashley Creek water storage tank and the installation of approximately 4,300 feet of new six-inch PVC water main, 13 new fire hydrants, service connection, meter pits, and all associated controls, and appurtenances. This work will also require the removal and replacement of approximately 1,400 feet of pavement. The distribution improvements will occur primarily along 3rd Avenue between Madison Street and Woods Street and 5th Avenue between Maple Street and Grove Street. The purpose of the project is to make improvements to the community's water supply system needed to protect public health.

The affected environment will primarily be the City of Thompson Falls, Montana, and the immediate vicinity. The human environment affected will include residents and visitors of the aforementioned areas. Based on the EA, the project is not expected to have any significant adverse impacts upon terrestrial and aquatic life or habitat, including endangered species, water quality or quantity, air quality, geological features, cultural or historical features, or social quality.

This project will be funded with a low interest loan through the Montana Drinking Water State Revolving Fund Program, administered by the Montana Department of Environmental Quality and the Montana Department of Natural Resources and Conservation. The loan will be repaid by a General Obligation Bond tax assessment.

The DEQ utilized the following references in completing its EA for this project: a Uniform Environmental Checklist for Montana Public Facility Projects and a Thompson Falls Water System Master Plan Update (amended April 2006) both prepared by Great West Engineering, the city's consulting engineer. In addition to these references, letters were sent to; Montana Department of Environmental Quality (MDEQ) Public Water Supply Program, MDEQ Hazardous Waste Site Cleanup Bureau, Montana Department of Fish, Wildlife & Parks (FWP), Montana Department of Natural Resources &

Conservation (DNRC), Montana Natural Heritage Program (MTNHP), United States Fish and Wildlife Service (USFWS), United States Army Corps of Engineers (USACE), United States Environmental Protection Agency (USEPA), United States Department of Agriculture Sanders County Conservation District, Natural Resource Conservation Service (NRCS), and Montana State Historic Preservation Office (SHPO). Response letters have been received from the USACE, MTNHP, SHPO, MDEQ, DNRC, and Montana FWP. These references are available for review upon request by contacting:

Robert Ashton
Montana DEQ
State Revolving Fund Program
P.O. Box 200901
Helena, MT 59620-0901
Phone (406) 444-5316
Email: rashton@mt.gov

or

Mayor Louis La Rock
City of Thompson Falls
P.O. Box 99
Thompson Falls, MT 59873
(406) 827-3090

Comments on this finding or on the EA may be submitted to DEQ at the above address. After evaluating substantive comments, DEQ may revise the EA or determine if an EIS is necessary. This finding will stand if no substantive comments are received during the 30-day comment period or if substantive comments are received and evaluated and the environmental impacts are still determined to be non-significant.

Signed,

Todd Teegarden, Chief
Technical & Financial Assistance Bureau

CITY OF THOMPSON FALLS
WATER SYSTEM IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT

I. COVER SHEET

A. PROJECT IDENTIFICATION

Applicant: City of Thompson Falls
Address: P.O. Box 99
Thompson Falls, MT 59873
Project Number:

B. CONTACT PERSON

Name: Louis R. La Roch, Mayor
City of Thompson Falls
Address: P.O. Box 99
Thompson Falls, MT 59873
Telephone: (406) 827-3090

C. ABSTRACT

The City of Thompson Falls, through a 2005 Water System Master Plan and a 2006 plan amendment, both prepared by GreatWest Engineering, has investigated the needs of their public water system. The Master Plan examined all components of the system including supply, storage, and distribution. The Master Plan identified significant deficiencies within the City's distribution systems. Most of the upper pressure zone distribution system and portions of the middle pressure zone and lower pressure zone are comprised of old, undersized lines (1 ½" to 3" galvanized pipe) that cannot pass recommended fire flows. Most of the mains in question are dead end lines without fire hydrants, so flushing capabilities do not exist and stagnant water is problematic. Portions of the upper zones also have low service pressure due to elevation, undersized pipe, and a lack of system looping. Replacing the 70-year old undersized water mains is necessary to improve system operating pressure and to provide fire protection.

Alternatives for remedying the system deficiencies were developed and an alternatives evaluation was completed in the 2005 Master Plan. Based on the analysis, specific water system improvements were recommended. The 2006 Master Plan Amendment adjusted the recommendations to better meet the city's current needs and financing. The level of improvements needed is above the City's financial capabilities so a phased approach to updating the system was developed. A three phased improvements plan is proposed. The recommended alternative from the 2006 Water Master Plan Amendment includes the following improvements:

Phase 1 Water Distribution Improvements

- Area 1 Distribution System Improvements – Low pressure area north of Haley Avenue and west of Jefferson Street - Middle Pressure Zone.
- Area 2 Distribution System Improvements – Grove Street, Fifth Avenue west of Church Street – Upper Pressure Zone.
- Improvements to the City Disinfection equipment including the addition of a new disinfection building at the Ashley Creek reservoir.

Phase 2 Water Distribution Improvements

- Area 3 Distribution System Improvements – Middle Pressure Zone.
- Area 4 Distribution System Improvements – Lower Pressure Zone.

Phase 3 Water Distribution and System Expansion

- Distribution System Improvements – Highway 200 East.

The project will be funded by a combination of state grants and loans and local funds. This Environmental Assessment (EA) examines the Phase I work as described in the Water Master Plan and Master Plan Amendment and the Phase I project plans and specifications. Based on this review, environmentally sensitive characteristics such as wetlands, floodplains and threatened or endangered species are not expected to be adversely impacted as a consequence of the proposed Phase I project. No significant long-term environmental impacts were identified.

Under Montana law (75-6-112, MCA), no person, including a municipality or county, may construct, extend, or use a public water system until the DEQ has reviewed and approved the plans and specifications for the project.

D. COMMENT PERIOD

Thirty (30) calendar days.

II. PURPOSE AND NEED FOR ACTION

The Thompson Falls water system originated as a railroad water system built in the late 1800's. The City has owned the system since 1936. The domestic water system consists of several components, including 7 developed springs on Ashley Creek, water transmission mains, 2 water storage reservoirs, 3 operating water wells, and the distribution system. The water system consists of over 82,500 feet of transmission and water main pipe.

The Thompson Falls water system currently serves 528 residential accounts and 108 non-residential accounts. The system provides basic domestic water service and irrigation service. Fire protection is also provided but limitations in the distribution system result in limited or no fire protection to major portions of the City. The Thompson Falls water system includes water meters on all individual service lines.

Significant deficiencies exist in the Thompson Falls water distribution system. While the City has made significant system improvements during the past decade, most of the upper pressure zone distribution system and a portions of the middle pressure zone and lower pressure zone are comprised of old, undersized lines (1 ½" to 3" galvanized pipe) that cannot pass recommended fire flows. Most of the mains in question are dead end lines without fire hydrants so flushing capabilities do not exist and stagnant water is problematic. Portions of the upper zones also have low service pressure due to elevation, undersized pipe, and a lack of system looping. Replacing the 70-year old undersized water mains is necessary to improve system operating pressure and to provide fire protection.

In addition, per capita water usage is approximately 10% higher than for typical metered water systems in Montana. The City has made substantial gains on water losses over the previous decade. Continuing with replacement of old galvanized lines will result in additional reductions of lost water, an important water conservation and supply management goal.

Existing water mains include polyvinyl chloride (PVC), asbestos cement (AC), steel, and galvanized pipe in sizes ranging from 1 ½" to 12". Many of the galvanized mains are over 70 years old, undersized, and not capable of providing minimum recommended fire flows to the community. A hydraulic model of the distribution system was prepared to document this deficiency. The 2005 Water Master Plan identifies the system deficiencies as follows:

- Portions of the middle pressure zone have low operating pressures. This results in a limitation in how much fire flow the distribution system can produce elsewhere in the system while still maintaining the DEQ required minimum system operating pressure of 20 psi. Low system pressure and the potential for backflow is a significant threat to public health and safety;
- 30% of the distribution system consists of old, undersized 1 ½" to 4" mains that are not capable of delivering adequate flows for fire protection, resulting in a serious threat to public safety;
- Much of the upper pressure zone has no fire hydrants so the area is without fire protection;
- Many of the hydrants in the older portions of the distribution system are over 40 years old. The Public Works Department reported that the old hydrants are difficult to maintain because parts are not available. The older hydrant also do not provide for a pumper truck connection. This is a violation of DEQ design standards;
- Fire hydrants are installed on mains smaller than 6-inch in diameter and cannot provide adequate fire flows. This is a violation of DEQ design standards;
- The Highway 200 corridor east of the city limits, a major economic base providing over 100 jobs for the community, is not on the public water system and has no fire protection.

Proper water transmission and distribution systems are important for public health and safety. Instigating the changes recommended by the Water Master Plan will reduce the public health and safety risk to the residents and visitors of Thompson Falls, Montana.

III. ALTERNATIVES INCLUDING THE PROPOSED ACTION AND COSTS

Alternatives analyzed in the 2005 Water System Master Plan include the "do nothing" option or replacing the old, undersized lines with properly sized PVC water mains and change the upper northwest portion of the service area to the upper pressure zone.

The "no action" alternative was not considered beyond the initial screening stage. This alternative will not remedy the serious problems currently being experienced with the distribution system. If improvements are not made to the distribution system, the community will continue to be unable to provide minimal fire flow for the residents of Thompson Falls and the northwest portion of the service area will continue to have low pressure problems. The following summarizes the recommended Phase I improvements (see Figure 1 and Figure 2).

Area 1 - Recommended Alternative

Area 1 is the residential service area located north of Haley Avenue and west of Jefferson Street. The service area is currently part of the middle pressure zone.

Area 1 Distribution Improvements are intended to shift the northwest service area from the middle pressure zone to the upper pressure zone and provide 6" mains to provide 900+ gpm flow capabilities for fire flows. These improvements are also intended to replace old, undersized, and leaking galvanized mains with new 6" PVC mains. The proposed improvements are outlined as follows:

- 1) A 6" PVC main will be installed along Third Avenue from Madison Street to Wood Street, then south to Haley Avenue, and west ½ block on Haley Avenue. New 6" PVC mains will also be installed on Gallatin Street and Park Street. Fire hydrants will be installed at all intersections that currently do not have hydrants. The new hydrants at Haley Avenue and Gallatin Street and Haley Avenue and Park Street will be installed on the middle pressure zone 6" main on Haley Avenue to take advantage of the greater fire protection capability from the middle pressure zone at these locations. These improvements will replace the existing 1-1/2" water mains and improve service pressure to the area. Water system improvements will also occur at the intersections of Madison and Haley and Jefferson and 3rd Avenue.

This work will include installing approximately 2,800 feet of 6-inch PVC water main, new gate valves, water services and meter pits.

Area 2 - Recommended Alternative

Area 2 is the residential service area located north of Haley Avenue and east of Jefferson Street. The service area is part of the upper pressure zone and includes the public school.

Improvements proposed for Area 2 are for improving the upper pressure zone service capabilities to provide fire protection to the area. Recommendations for the first phase of Area 2 improvements are outlined as follows:

- 1) A 6" PVC main will be installed on Maple Street, along Fifth Avenue from the intersection Maple Street west to Grove Street. Fire hydrants will be installed at all intersections that currently do not have hydrants and where existing hydrants are undersized or inoperable. These improvements will replace the existing 4-inch mains on Maple Street and Fifth Avenue. These improvements will provide the recommended flows for fire protection along the route and will provide the base fire service main for the second phase of improvements recommended for the upper pressure zone.

This work will include installing approximately 1,500 feet of 6-inch PVC water main, new gate valves, water services and meter pits.

Disinfection System – Recommended Improvements

Phase I will also include improvements to the City disinfection equipment and facility enclosure located at the Ashley Creek reservoir (spring water supply). The improvements will update the facilities by eliminating a confined space entry (operator safety) and replace critical aging equipment. This work will include building a new disinfection building and replacement of gas chlorination equipment with liquid sodium hypochlorite.

Phase I – Proposed Project and Costs

Table I shows the estimated project costs for the proposed Phase I water system improvements.

TABLE 1 RECOMMENDED IMPROVEMENT PROGRAM PHASE I IMPROVEMENTS		
ITEM	DESCRIPTION	ESTIMATED COST
Phase I		
Priority #1	Area 1 Distribution System Improvements – Middle Pressure Zone	\$394,460
Priority #2	Area 2 Distribution System Improvements – Grove Street, Fifth Avenue west of Church Street – Upper Pressure Zone	\$291,460
	Disinfection System Improvements	\$ 40,000
Total Phase I Water Improvements		\$ 725,920

The project cost seen in Table 1 does not include loan fees associated with funding the project. For Phase I of the work, the City of Thompson Falls has received funding commitments of:

\$363,000	grant – Montana Department of Commerce/Treasure State Endowment Program (TSEP)
\$100,000	grant – Montana Department of Natural Resources and Conservation/Renewable Resource Grant and Loan Program (RRGL)
\$137,250	loan – Montana Department of Environmental Quality, State Revolving Fund Loan Program (SRF)
<u>\$ 135,000</u>	Applicant Contribution using City Reserves (City of Thompson Falls)
\$ 735,250	Total Phase I Funding

Total Funding for the proposed Phase I Project - \$735,250 (the City can adjust the amount borrowed from the SRF Program once bids have been received). The City of Thompson Falls expects to be able to complete all of the Phase I work within the existing budget.

USER RATES

The Montana Department of Commerce determines grant funding eligibility based on public utility target rates developed from community income levels. Following is the MDOC information for Thompson Falls:

Median Household Income:	\$28,103
Low to Moderate Income Percentage	54.2%
Water Target Rate:	\$30.16/month
Water & Wastewater Target Rate:	\$49.55/month

The average water rate for Thompson Falls is \$37.35/month and the average water and wastewater rate is \$77.94/month (based on most recent fiscal year). Both rates are considered since the portion of the City is on public water and sewer (south of Highway 200) and the remainder of the City is on public water only. The City exceeds the target rate in either case and meets the MDOC TSEP program grant eligibility requirements. The proposed Phase I water system improvements project will not require a rate increase.

IV. AFFECTED ENVIRONMENT

A. STUDY AREA

The City of Thompson Falls is located on US Highway 200 along the Clark Fork River in Sanders County. The surrounding area consists primarily of national forest land. This analysis primarily addresses the area within and adjacent to the city limits although the surrounding areas are considered in the environmental analysis.

The Cabinet Mountains are located north of the city and the Coeur D Alene Mountains are located south of the city. The Clark Fork River flows east to west and is the south border of the planning area. U.S. Highway 200 bisects the City generally in the east west direction. The Montana Rail Link railroad right-of-way also bisects the city and runs adjacent to Highway 200. Natural barriers in the vicinity of Thompson Falls include: The Clark Fork River, US highway 200, The Montana Rail Link Railroad, and Mount Silcox.

B. POPULATION AND FLOW PROJECTIONS

Population Projections

In order to adequately analyze the capabilities of the water system, the 2005 Water System Master Plan discussed the population projections to the year 2025.

Thompson Falls is primarily a residential community and does not experience significant seasonal increases in demand due to tourism during the summer or winter months. Thompson Falls has 528 residential water users and 108 non-residential water users. The non-residential users, generally distributed along the US 200 corridor, include School District 2, the Sanders County Courthouse and jail, the Falls Motel, the Lions Manor assisted living facilities, convenience store/fuel stations, a car wash, laundries, bars, restaurants, and numerous retail businesses and offices. There are no intensive industrial water users in Thompson Falls.

The City of Thompson Falls is incorporated and census figures are available. The 2005 Master Plan included a review of City and County population figures from U.S. Census data compiled since 1950. This review notes a decline in population since 1980. The population declined by 10.5% between 1980-2003. However, the decline primarily occurred during the 1980's. The population remained stable during the 1990's and the 2003 census update shows the trend has continued. Sanders County's population grew by 23% during the 1980-2003 period. Most of the growth in the county has occurred in the unincorporated areas.

While the city population has remained stable since 1990, it is prudent to plan for some level of growth over the planning period. The historic data for city and county growth and US Census population projections for Sanders County were evaluated in order to help develop a reasonable growth rate projection for the city. The census projection for county growth equates to an annual growth rate of 1.2% through 2025. The county growth rate has been greater than that of the City. A modest annual growth rate of 0.5% has been used to develop the design period population for Thompson Falls. This correlates to a 2025 design population of 1,510 or an increase of 187 residents over the current estimated 2003 population of 1,323. The Master Plan also projected population based on an analysis of the Equivalent Dwelling Units and this resulted in projecting a 2025 population of 2020. This more conservative population projection will be used in flow projections.

Flow Projections

The 2005 Water System Master Plan includes the analysis of current and projected water demands and examines the source capacity of the existing water system. The average day is based on the evaluation of existing data, the maximum day is based on the maximum day of record and the peak hourly demand is estimated based on applying a 2.0 factor to the maximum day rate. The results of the flow projections can be seen in Table 2.

TABLE 2 CITY OF THOMPSON FALLS, MONTANA CURRENT AND FUTURE WATER DEMANDS					
Demand(gpcd)		2004⁽¹⁾		2025⁽²⁾	
		Demand (gpd)	Demand (gpm)	Demand (gpd)	Demand (gpm)
Avg. Daily	216	388,800	270	436,320	303
Max. Daily	497	895,000 ⁽³⁾	622	1,003,940	697
Max. Hourly	996	-	1,244	-	1,397

⁽¹⁾ Based on Current Water User Population of 1800

⁽²⁾ Based on Population of 2020

⁽³⁾ Maximum day of record, August 8, 2003

In addition to the population and design flows seen above, the 2005 Master Plan examined the system storage and source water capacity. Based on this analysis, the 2005 Master plan did not include recommendations to improve either the storage or source capacity of the Thompson Falls water system.

C. NATURAL FEATURES

Soils

Local soil types include fine sandy loam, loamy fine sand, silt loam, and gravelly silt loam. Soils in the existing City limits and the area east of the City in the Highway 200 corridor are classified as gravelly silt loams. Soils in the area east of the City in the area of the high school include fine sandy loams and loamy fine sands.

The soils are all classified as very deep and either well drained or somewhat excessively drained. The soils parent material is alluvium. The landforms are stream terraces not subject to flooding. Slopes range from 0% to approximately 15%. The plant cover is classified as rangeland (in the flatter areas) or forestland.

Topography and Geology

Thompson Falls is located in a narrow river valley. Elevations vary significantly in the water system area with the elevation at the Ashley Creek water reservoir overflow approximately 2,880 feet above mean sea level (msl), the elevation of the Jefferson Street reservoir approximately 2,688 feet above msl, and the elevation on Maiden Lane approximately 2,445 feet above msl.

The topography within the city limits varies. The area along Highway 200 and south to the riverbank consist of a gently sloping to level terrace. The area north of Highway 200 slopes from north to south up to approximately 10%.

Thompson Falls is located within the lower Clark Fork River Valley. The valley is bordered by the Cabinet Mountains on the north and the Coeur d'Alene Mountains on the south.

The Clark Fork River originates in southwest Montana and is part of the Columbia River basin. Upstream watersheds include the Middle Clark Fork and the Lower Flathead. The watershed is a fault bounded, northwest trending structural basin. The drainage area for the Clark Fork River at Thompson Falls is approximately 21,113 square miles. A USGS gauging station was located at Thompson Falls and flow data is available for the period from 1951 to 1959. The annual mean stream flow ranged from 17,740 cfs to 27,480 cfs.

The valley is a bedrock basin overlain by unconsolidated alluvial deposits. The bedrock of the Cabinet and Coeur d'Alene Mountains is primarily Belt Subgroup sedimentary rock of Precambrian age. The rock is comprised of formations of metasediments, primarily quartzite, argillite, with some carbonate (limestone) units (Kendy and Tresch, 1996). The area is extensively faulted with two main fault zones in the area of Thompson Falls.

Land Use/Important Farm Ground/Formally Classified Lands

The platted area of Thompson Falls generally matches the city limits area. A rectangular street grid system is oriented parallel to Highway 200 (Main St.), with the business district stretching along the highway corridor. The remainder of the City is primarily residential development with the elementary school located in the north central portion of the city on Haley Avenue and the high school located east of the city on Mount Silcox Drive.

The Natural Resource Conservation Service was contacted to determine if there are any formally classified lands (farmland, range land, forest land) within the planning area. Classified lands have not been identified.

Thompson Falls currently does not have property zoning. The City has no current plans to consider instituting zoning ordinances.

Floodplains and Wetlands

The Clark Fork River flows along the south boundary of the city limits. A Federal Emergency Management Agency (FEMA) floodplain map exists for the project area. The floodplain is generally limited to a narrow corridor along the river embankment

National Wetland Inventory (NWI) mapping data is not available for the Thompson Falls area. A review of aerial mapping and on-site reviews were completed to identify potential wetland areas. Areas that might be considered strip wetlands would be areas along the Clark Fork River. These areas would be classified as riverine wetlands to be consistent with other NWI mapping in Montana.

Historical/Cultural Resources

The City of Thompson Falls and surrounding area is rich in cultural resources. The National Register of Historic Places web site includes eighteen listings of buildings within the City. The areas of historical significance are noted in the listings and include architectural/engineering, person, event, and commercial.

Biological Resources

Fauna of the general area consists of typical mammalian species found in the intermountain west, including elk, mule deer, whitetail deer, bighorn sheep, black bear, grizzly bear, coyote, rabbit, skunk, weasel, rodents and others. Common bird species include the black-billed magpie, American robin, Canadian goose, osprey, blackbird, sparrow, warbler, common waterfowl, other raptors, game birds and others.

Vegetation

Vegetation types in immediate proximity to Thompson Falls generally include forest, agricultural, and riparian zones. The forest areas are predominate and are located on the western, northern and eastern boundaries of the City. Agricultural use in the areas is limited and generally includes grazing areas or alfalfa and grass hay crops. The riparian zones are located along the Clark Fork River and Ashley Creek drainages.

Surface Water and Groundwater

Two surface water resources are located in the proposed project vicinity. The Clark Fork River runs westerly along the south border of the City. Ashley Creek flows from the Cabinet Mountains south, through agricultural lands east of the City, to the Clark Fork River.

There are three identified groundwater sources in the area, an unconfined alluvial aquifer, a deeper confined aquifer, and the Ashley Creek Springs.

Two of the City's wells (#1 and #2) are developed into the shallow alluvial aquifer near the Clark Fork River just east of the City. Yields for wells in the area range from 250-1,500 gpm. Data collected during the 2000 well construction project suggests the river is a "losing stream" in this area and is recharging the groundwater aquifer. The water quality in these wells meets the Safe Drinking Water Act (SDWA) Maximum Contaminant Limits (MCL's) but exceeds the secondary standards for iron and manganese. The water is not desirable for potable use due to the high iron and manganese levels.

City wells #3 and #4 were constructed east of the City in 2000. The wells were constructed in a locally confined aquifer just above bedrock. Yields for wells range from 350-1,100 gpm.

Socio-Economic/Environmental Justice

Thompson Falls is a moderately sized community located on Highway 200 northwest of Missoula. Improved water service alone will not likely encourage growth. Economic opportunity will be necessary for new residents to locate in the City. The City does have a large area east of the city limits available for development.

V. DIRECT AND INDIRECT ENVIRONMENTAL IMPACTS OF PROPOSED PROJECT

No adverse impacts to the environment are anticipated by implementation of the proposed water system improvements. All of the distribution system improvements will be located within the existing limits of the City, either in existing streets or in platted street right-of-ways.

Soils Suitability, topographic and Geologic Constraints

No soil, topography or geological constraints are present for the proposed Phase I water project. Based on the existing conditions and soils types, the indirect impacts of the proposed Phase I water project will have no significant effect on the soils or topography.

Shallow groundwater levels that would affect construction of water system components are generally not a problem except in the immediate area of the Clark Fork River. The soils are generally well suited for construction of water system components. None of the proposed water system improvements are in areas with shallow groundwater.

Land Use/Important Farm Ground/Formally Classified Lands

Because the proposed improvements are located within existing City streets and right-of-ways there will be no direct impact to existing land use. The proposed water system improvements are not being done to facilitate growth and will have no indirect impacts to these resources.

Floodplains and Wetlands

The proposed Phase I water improvements project does not include work within floodplain or wetland areas and will not have a direct impact on these resources. The proposed water system improvements are not being done to facilitate growth and will have no indirect impacts to these resources.

Historical/Cultural Resources

The Montana State Historic Preservation Office (SHPO) was contacted to complete a cultural resource file search for the Thompson Falls area. A report was provided by the Preservation Office. The Preservation Office noted that there have been a few previously recorded sites within the planning area and that several cultural resource inventories have been conducted in the area. However, the office noted that there is low likelihood for cultural properties to be impacted because project improvements (water main improvements) would occur in areas that have been previously disturbed and a cultural resource inventory is not recommended.

Biological Resources and Vegetation

Because the proposed improvements are located within existing City streets and right-of-ways there will be no direct impact to biological resources or vegetation. The proposed water system improvements are not being done to facilitate growth and will have no indirect impacts to these resources.

Surface Water and Groundwater

The proposed water system improvement will replace or improve the existing distribution system and will have no impact to surface or groundwater resources.

Socio-Economic/Environmental Justice and Public Health

There is no known disproportionate increase in environmental or public health impacts to minority and low-income persons due to the proposed phase I water improvements project. All persons would benefit from the enhanced water system, security, and fire protection from both a public health and safety basis and an economic basis. Water system improvements are important for fire protection of residential areas and the core business areas of the City.

The social justice impacts of the proposed improvements are of significant importance in the area. The area with the highest level of need is the residential upper pressure zone. The residents in this area are generally lacking fire protection. Completion of proposed improvements will result in a reliable distribution system capable of providing service to protect public safety in all areas of the City.

Air Quality - Short-term negative impacts on the air quality will occur from heavy equipment, dust and exhaust fumes during project construction. Proper construction practices and dust abatement measures will be implemented during construction to control dust, thus minimizing this problem.

Energy - During construction of the proposed project, additional energy will be consumed, resulting in a direct short-term increased demand on this resource.

Noise - Short-term impacts from increased noise levels will occur during construction of the proposed project improvements. Construction activities are anticipated to last three to five months and will occur only during daylight hours.

A. UNAVOIDABLE ADVERSE IMPACTS

All of the water lines will be constructed within the street right-of-way; therefore street surface restoration will be required. Also, access to and from homes and businesses during construction will take special consideration. Short-term construction related impacts, such as noise, dust and traffic disruption, will occur but should be minimized through proper construction management. Energy consumption during construction cannot be avoided.

B. CUMMULATIVE IMPACTS

This project addresses the existing water utility needs and will have no subsequent negative cumulative effects on resources, ecosystems or human communities. This project is part of a phased improvements plan that includes providing City water service to new and developing areas within and surrounding the city of Thompson Falls. Future growth would increase traffic thus increasing air pollution and noise. The potential for soil erosion and runoff from paved areas could potentially impact surface water quality in the area. The projected growth of Thompson Falls over the next 20 years is not expected to cause cumulative effects beyond the capacity of the resources. Further environmental analysis would be required for any discussion of cumulative impacts beyond this scope and time frame.

VI. PUBLIC PARTICIPATION

A public meeting was held on December 13, 2004 during the regular City Council meeting after the initial system analysis was completed. The purpose of the meeting was to present to the mayor, council, and public in attendance the water system analysis and obtain input and direction for completion of the study. Information presented included the results of the following analyses:

- service population
- population projection
- existing per capita water demand
- projected per capita water demand
- supply system
- storage system
- distribution system (fire flow analysis)

The presentation also included recommendations for improvements to correct identified deficiencies in the distribution system, preliminary cost summaries, present worth analysis, and a preliminary financing plan.

A public hearing was held at the City Council chambers on April 12, 2005 to present the study findings and recommendations to the mayor, council, and residents. The 2005 Water Master Plan Update was officially accepted at this time by the City Council.

VII. AGENCY ACTION, APPLICABLE REGULATIONS, AND PERMITTING AUTHORITIES

All water system improvements (distribution and disinfection) will be designed to meet Montana DEQ requirements. Proper State regulatory review and approval of the project plans and specifications will be obtained. All applicable local, federal and state permits will be acquired

including, but not limited to, a stormwater discharge permit and a construction-dewatering permit if needed.

All appropriate easements and access will be addressed with regards to the water system infrastructure. If required, land acquisition or long term agreements will be established for the land requirements associated with a new well and transmission main.

VIII. REFERENCE DOCUMENTS

The following documents were utilized in the environmental review of this project and are considered to be part of the project file:

- A. The City of Thompson Falls, Montana – Water System Master Plan Update, April 2005, prepared by GreatWest Engineering, Helena, Montana.
- B. The City of Thompson Falls, Montana – Water System Master Plan Update Amendment, April 2006, Prepared by GreatWest Engineering, Helena, Montana.
- C. Uniform Environmental Checklist for Montana Public Facility Projects, April 2006, prepared by GreatWest Engineering, Helena, Montana.

IX. AGENCIES CONSULTED

The following agencies were contacted regarding the proposed construction of this project:

- A. The Montana Department of Fish, Wildlife and Parks was asked in a letter by the project consultant for comments on the proposed project. The Montana Fish Wildlife and Parks reviewed the project area and determined that some of the proposed water main replacement work would occur in close proximity to the Thompson Falls Reservoir and gave instructions on proper construction practices. None of the Phase I work will be performed in the areas of concern.
- B. The U.S. Army Corps of Engineers was asked in a letter by the project consultant for comments on the proposed project. The U.S. Army Corps of Engineers stated that "...Army permits are required for the discharge of fill material into waters of the United States." The proposed Phase I water improvements project will not discharge fill materials to jurisdictional areas and will not require a permit.
- C. The Montana Historical Society's Historic Preservation Office reviewed the project and a comment email was received February 11, 2005. The letter states, "We feel that because the project will be occurring within existing streets and roads there is a low likelihood cultural properties will be impacted. We, therefore, feel that a recommendation for a cultural resource inventory is unwarranted at this time. However, should cultural materials be inadvertently discovered during this project we would ask that our office be contacted and the site investigated."
- D. The Montana Department of Natural Resource and Conservation's Floodplain Section Service was asked in a letter by the project consultant for comments on the proposed project. In an email dated March 25, 2005 the agency stated "we see no floodplain issues in regard to the water system project."
- E. The Montana Department of Environmental Quality – Hazardous Waste Site Cleanup Bureau reviewed the proposed project and noted four petroleum release sites in Thompson Falls which do not have resolved dates, signifying that these sites may have petroleum contamination that has not yet been cleaned up. The Phase I distribution work is not within areas of identified petroleum contamination.
- F. Montana Natural Heritage Program (MNHP) reviewed the project and responded in a February 11, 2005 letter. The MNHP identified four species of concern within the Thompson Falls area. Also, provided where species of concern reports and a map of potential habitat areas.

X. RECOMMENDATION FOR FUTURE ENVIRONMENTAL ANALYSIS

☐ EIS

☐ More Detailed EA

☒ No Further Analysis

Rationale for Recommendation: Through this EA, The Montana DEQ has verified that none of the adverse impacts of the City of Thompson Falls's Water System Improvements Project are significant. Therefore, an environmental impact statement is not required. The environmental review was conducted in accordance with the Administrative Rules of Montana (ARM) 17.4.607 thru 17.4.610.

EA Prepared By:

Robert Ashton

Date

EA Reviewed By:

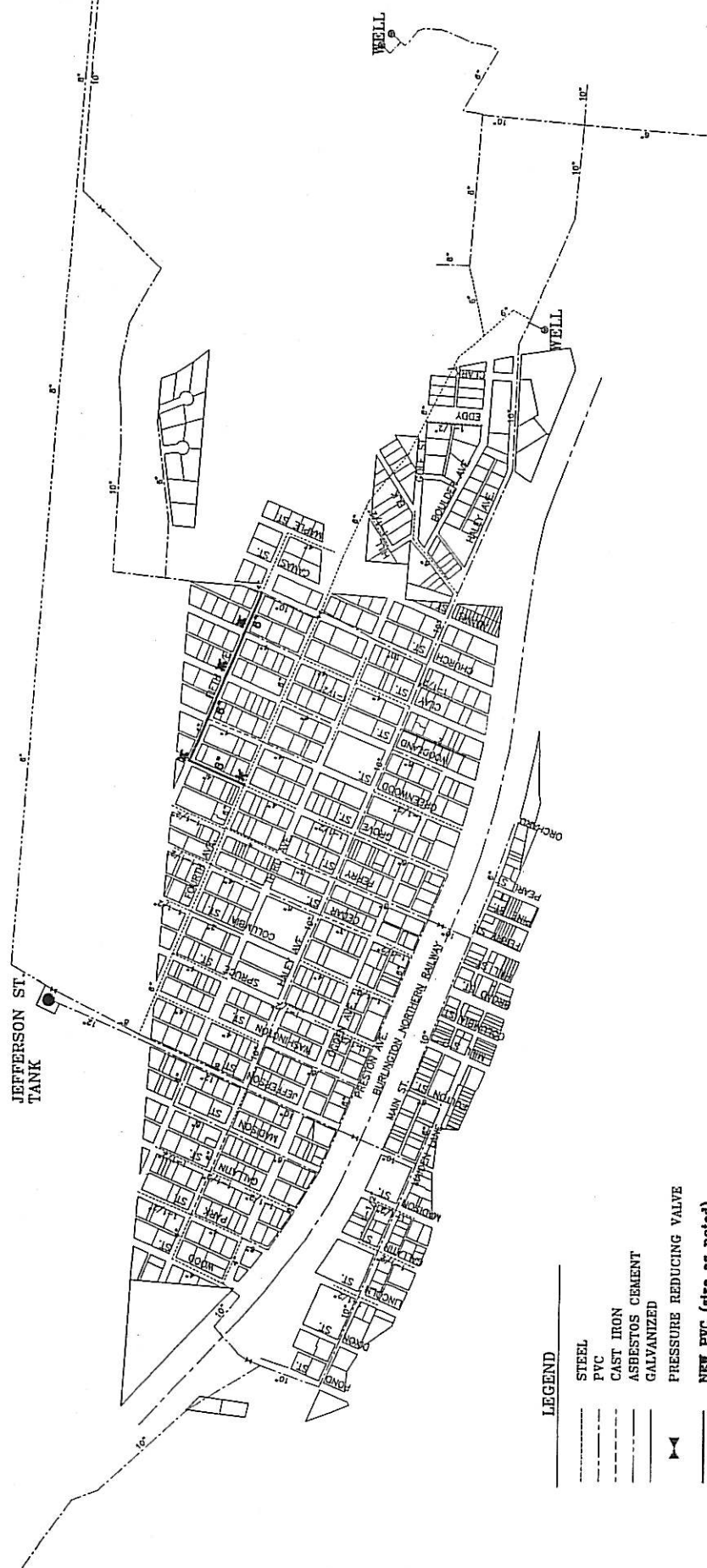
Mac Golz, P.E.

Date



ASHLEY CR. TANK
TO SPRINGS

JEFFERSON ST. TANK

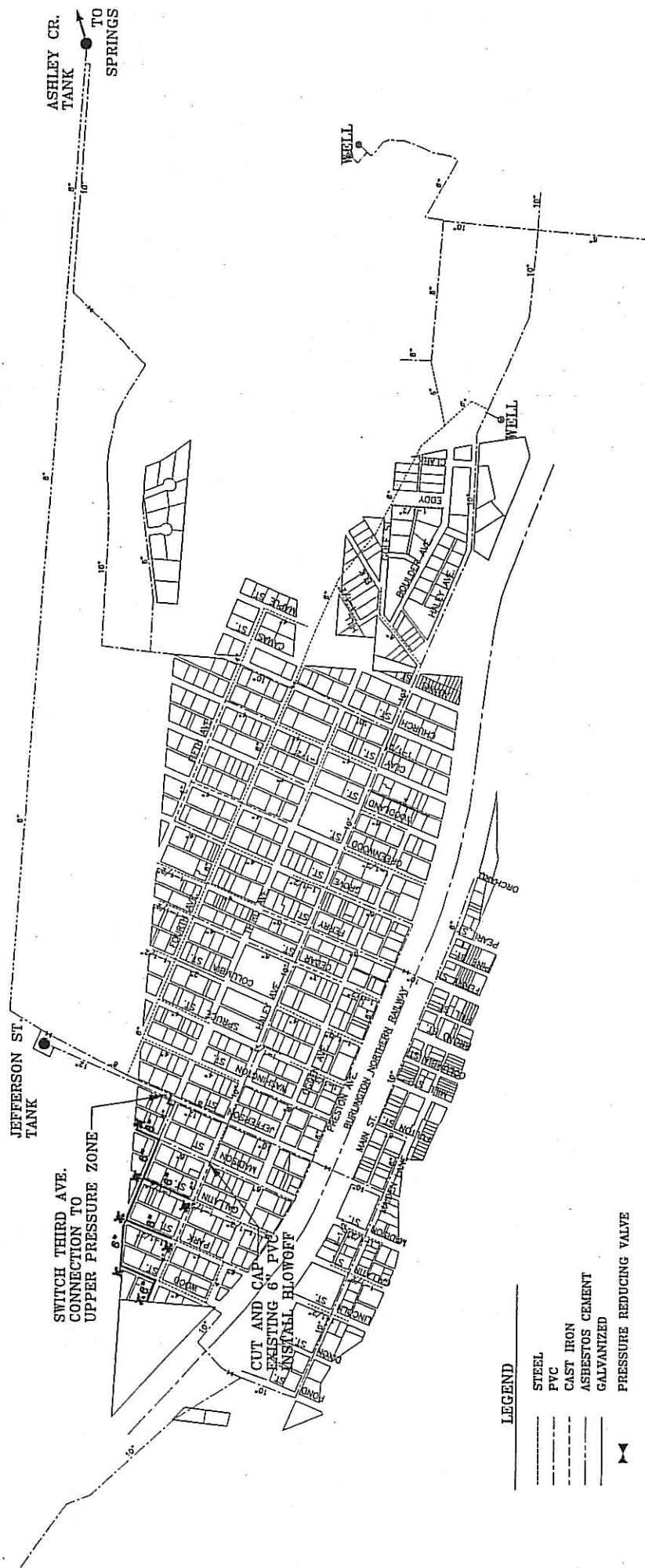


LEGEND

- STEEL
- PVC
- CAST IRON
- ASBESTOS CEMENT
- GALVANIZED
- PRESSURE REDUCING VALVE
- NEW PVC (also as noted)
- NEW HYDRANT

CITY OF THOMPSON FALLS
WATER SYSTEM PRELIMINARY ENGINEERING REPORT
AMENDMENT
AREA 2
WATER SYSTEM IMPROVEMENTS
FOURTH/FIFTH AVE. LOOP
FIGURE 5-3A





LEGEND

- STEEL
- PVC
- CAST IRON
- ASBESTOS CEMENT
- GALVANIZED
- PRESSURE REDUCING VALVE
- NEW FVC (also as noted)
- NEW HYDRANT

CITY OF THOMPSON FALLS
WATER SYSTEM PRELIMINARY ENGINEERING REPORT

AREA 1
WATER SYSTEM IMPROVEMENTS
FIGURE 5-2

